

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES***

Applicant: OLKKONEN et al.  
Title: A DATA TRANSMISSION METHOD AND A NETWORK ELEMENT  
Appl. No.: 09/868,819  
International Filing Date: 12/23/1999  
371(c) Date: 10/04/01  
Examiner: DENNISON, Jerry B.  
Art Unit: 2443  
Confirmation Number: 6311

**REVISED BRIEF ON APPEAL**

Mail Stop Appeal Brief - Patents  
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Sir:

This communication is responsive to the Notice of Non-Compliant Appeal Brief dated May 27, 2009. If any fee is required, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 19-0741.

**REAL PARTY IN INTEREST**

This Application names Mikko Olkkonen, Senthil Sengodan, Jarno Rajahalme, Jyri Suvanen and Johan Haeggstrom as inventors. Between September 21, 2001, and September 28, 2001, the inventors executed an assignment of the Application to Nokia Networks, having a place of business at PL 300, Nokia Group, FINLAND FIN-00045. The assignment was recorded by the United States Patent and Trademark Office at Reel/Frame No. 012265/0400 on October 10, 2001.

**RELATED APPEALS AND INTERFERENCES**

This Appeal is not related to any other Appeals or Interferences.

**STATUS OF CLAIMS**

Claims 1, 4-10, 12-25 and 27-29 are pending in the application and are the subject of this appeal. Claims 2, 3, 11 and 26 were previously canceled.

**STATUS OF AMENDMENTS**

Appellant believes that the claim amendments filed on January 2, 2009, have been entered. Amendments proposed on May 22, 2009, in a response to the Final Office Action dated March 23, 2009, were not entered by the Examiner.

**SUMMARY OF CLAIMED SUBJECT MATTER**

Various embodiments of the present invention relate to a gateway between a circuit-switched network, such as a public switched telephone network (PSTN), and the Internet. The gateway of the embodiments of the present invention functions as a transmission node of the network and, accordingly, may be transparent to a user. In accordance with certain embodiments, a header in an IP protocol datagram determines whether or not the datagram includes information belonging to a specified channel in a corresponding time slot of a circuit switched network node.

In one embodiment, as recited in independent claim 1, the present invention relates to a method comprising transmitting data over a data transmission network from a first circuit switched transmission line through a first circuit switched network node towards a second circuit switched network node that is coupled to a second circuit switched transmission line (page 5, lines 1-20); employing, in the data transmission network, an IP protocol for transmissions from said first circuit switched network node, which receives data from said first circuit switched transmission line, towards said second circuit switched network node, said data being destined for transmission into said second circuit switched transmission line (page 5, line 32 - page 6, line 2; page 11, lines 18-33); using an IP protocol datagram to transmit data received from the first circuit switched transmission line towards the second network node (page 6, line 1 – page 7, line 25); forming a header for said IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line, and an IP protocol address of the second network node (page 7, lines 10-25; page 9, lines 1-21); and indicating within said IP protocol datagram separately for each of a plurality of time slots

known to at least one of said first and second circuit switched network nodes, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner (page 9, lines 1-22).

In one embodiment, as recited in independent claim 10, the present invention relates to a network element comprising a first connection for connecting to a first circuit switched transmission line (page 5, lines 1-20); a second connection for connecting to a data transmission network employing an IP protocol (page 5, lines 1-20), and a processor configured to implement an IP protocol address generating unit for generating IP protocol addresses for IP protocol datagrams to be transmitted over said data transmission network to a second network element (page 5, lines 1-20); wherein said IP protocol address generating unit is configured to form a header of an IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in a second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element (page 7, lines 10-25; page 9, lines 1-21); and wherein the network element is configured to indicate within said IP protocol datagram separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner (page 5, line 31 – page 7, line 25; page 9, lines 1-21).

In one embodiment, as recited in independent claim 28, the present invention relates to a method comprising receiving data over a data transmission network, said data coming from a first circuit switched transmission line through a first circuit switched network node, at a second circuit switched network node that is coupled to a second circuit switched transmission line (page 5, lines 1-20); employing, in the data transmission network, an IP protocol for transmissions from said first circuit switched network node to said second circuit switched network node, said data originating from said first circuit switched transmission line and being destined for transmission into said second circuit switched transmission line (page 5, line 21 – page 6, line 2; page 11, lines 18-33); using an IP protocol datagram to receive data transmitted from the first circuit switched transmission line at the second network node (page 6, line 1 – page 7, line 25); reading a header from said IP protocol datagram, said header being based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line, and an IP protocol address of the second network node (page 7, lines 10-25; page 9, lines 1-21); and reading from said IP protocol datagram an indication separately for each of a plurality of time slots known to at least one of said first and second circuit switched network nodes, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a nonconsecutive manner (page 9, lines 1-21).

In one embodiment, as recited in independent claim 29, the present invention relates to a second network element comprising a first connection for connecting to a data transmission network employing an IP protocol (page 5, lines 1-20), a second connection for



connecting to a second circuit switched transmission line (page 5, lines 1-20), and a processor configured to implement an IP protocol address reading unit for reading IP protocol addresses from IP protocol datagrams received over said data transmission network from a first network element (page 5, lines 1-20); wherein said IP protocol address reading unit is configured to read a header from an IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element (page 7, lines 10-25; page 9, lines 1-21); and wherein the network element is configured to read from said IP protocol datagram an indication separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner (page 5, line 31 – page 7, line 25; page 9, lines 1-21).

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be reviewed on appeal are:

- 1) the objection to the specification;
- 2) the rejection of claims 16 and 18 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite;
- 3) the rejection of claims 1, 4-10, 12-21, 24, 25 and 27-29 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Number 6,438,124 to Wilkes (hereinafter “Wilkes”); and
- 4) the rejection of claims 22 and 23 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wilkes in view of U.S. Patent Number 6,449,278 to Rose.

## **ARGUMENT**

### **I. Objection to the Specification**

The Examiner objected to the specification for allegedly lacking proper antecedent basis for claimed subject matter. In particular, the Examiner argues that “storage medium,” recited in claims 10 and 29, is absent from the specification. Appellant respectfully disagrees with the Examiner’s position. However, in order to expedite prosecution, Appellant has proposed amending claims 10 and 29 to delete the language objected to by the Examiner. Specifically, Appellant proposed amending claims 10 and 29 as follows:

10. (Proposed Amended) A network element, comprising:
  - a first connection for connecting to a first circuit switched transmission line;
  - a second connection for connecting to a data transmission network employing an IP protocol, and
  - ~~a storage medium embodying computer-executable instructions that, when executed on a processor~~ ~~[[, are]]~~ configured to implement an IP protocol address generating unit for generating IP protocol addresses for IP protocol datagrams to be transmitted over said data transmission network to a second network element;wherein said IP protocol address generating unit is configured to form a header of an IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in a second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element; and wherein the network element is configured to indicate within said IP protocol datagram separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.
29. (Proposed Amended) A second network element, comprising:
  - a first connection for connecting to a data transmission network employing an IP protocol,
  - a second connection for connecting to a second circuit

switched transmission line, and  
~~a storage medium embodying computer-executable instructions that, when executed on a processor~~ [[, are]] configured to implement an IP protocol address reading unit for reading IP protocol addresses from IP protocol datagrams received over said data transmission network from a first network element;

wherein said IP protocol address reading unit is configured to read a header from an IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element; and wherein the network element is configured to read from said IP protocol datagram an indication separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.

In the Advisory Action dated June 2, 2009, the Examiner refused to enter the proposed amendment, arguing that the amendments “raise new issues that would require further consideration and/or search. Appellant respectfully notes that the amendments merely deleted the language objected to by the Examiner and do not result in any change in scope of the claims. Accordingly, the proposed amendments should be entered, and the objection to the specification should be withdrawn.

## **II. Rejection of Claims 16 and 18 under 35 U.S.C. § 112**

Claims 16 and 18 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. In a response filed on May 22, 2009, Appellant proposed amending these claims to more clearly recite the claimed subject matter. Specifically, Appellant proposed amending claims 16 and 18 as follows:

16. (Proposed Amended) The method according to claim 1, wherein said forming of a header for said IP protocol datagram is based at least partly on a time slot number that at least one of said first and second network nodes knows ~~associate~~ is associated with data which is transferred in the IP protocol datagram.

18. (Proposed Amended) The network element according to claim 10, wherein the network element is configured to determine said IP protocol address based at least partly on a time slot number that at least one of said first and second network nodes knows ~~associate~~ is associated with data which is transferred in the IP protocol datagram.

In the Advisory Action, the Examiner refused to enter the proposed amendments and argued that amendment fails to cure the indefiniteness since it “is still unclear as what is meant by the nodes knowing what is associated with the data.” Appellant respectfully disagrees.

Appellant respectfully notes that one of ordinary skill in the art would readily understand that the nodes associate the data with a time slot number. See e.g., Specification, page 5, line 33 to page 7, line 2. In light of the description in the specification, the language of the claim is sufficiently clear. Therefore, Appellant respectfully requests that the proposed amendments be entered and the rejections under 35 U.S.C. § 112 be withdrawn.

### **III. Rejection of claims 1, 4-10, 12-21, 24, 25 and 27-29 under 35 U.S.C. § 103(a)**

Claims 1, 4-10, 12-21, 24-25 and 27-29 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wilkes. Appellant respectfully traverses this rejection for at least the reasons that follow.

Embodiments of the present invention provide a gateway between a circuit-switched network, such as a public switched telephone network (PSTN), and the Internet. The gateway

of the embodiments of the present invention functions as a transmission node of the network and, accordingly, may be transparent to a user. Rather than the user, it is the PSTN which decides to utilize the gateway for routing certain calls. The users are not involved in the decision. In accordance with certain embodiments, a header in an IP protocol datagram determines whether or not the datagram includes information belonging to a specified channel in a corresponding time slot of a circuit switched network node. Accordingly, claim 1 recites “forming a header for said IP protocol datagram based at least partly on circuit switched channel identifying parameters....” Independent claims 10, 28 and 29 also recite a similar feature.

Thus, in accordance with embodiments of the present invention, there are channels in the second circuit switched transmission line. It is the channel that is identified by the parameters, not the second circuit switched transmission line itself.

A. Wilkes fails to teach or suggest forming a header for said IP protocol datagram based at least partly on circuit switched channel identifying parameters

Wilkes fails to teach or suggest any channels or any parameters identifying such channels. Wilkes discloses a dedicated line connected between an originating VoiceEngine and origin telephone from which one signal is produced and distributed as determined by a subscriber. In accordance with the disclosure of Wilkes, a dedicated line is connected between the destination and the VoiceEngine.

The Examiner argues that, in accordance with the disclosure of Wilkes, the second VoiceEngine receives IP packets from the first VoiceEngine and knows to which telephone extension the incoming IP packets should go. Thus, the Examiner argues, the first VoiceEngine in Wilkes must have formed said header so that it included a parameter therein,

identifying the telephone extension to which the second Voice Engine should push the contents of the packet.

Even accepting the Examiner's interpretation of Wilkes, Wilkes merely discloses parameters identifying a transmission line, not a channel within that line. Again, the pending claims recite "parameters ... which identify at least one channel in the second circuit switched transmission line."

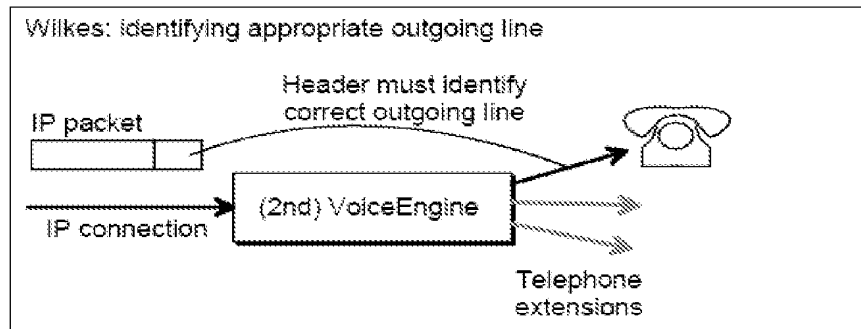
In accordance with the disclosure of Wilkes, only a single connection exists between two devices, such as a single cord running from a telephone exchange to an individual tabletop phone. There is no teaching or suggestion in Wilkes of any channels. Since Wilkes does not disclose any channels, it necessarily fails to disclose any channel identifiers. Disclosure by Wilkes of a simple identifier of the transmission line is insufficient to teach or suggest the features recited in the pending claims.

In the Advisory Action, the Examiner argues:

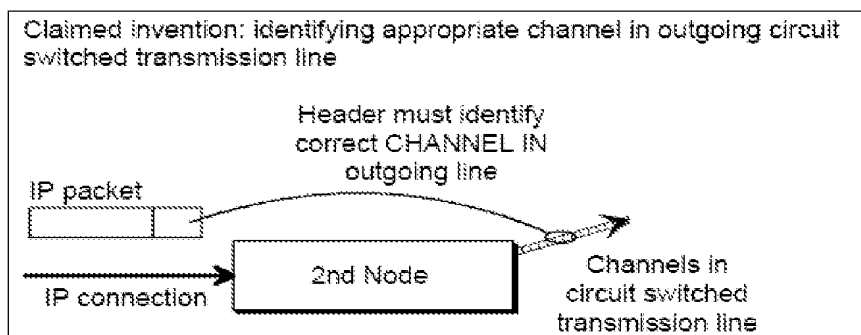
"even if the VoiceEngine obtains an identifier ... of the receiving phone(s) from the subscriber, the VoiceEngine still must convert that call data and specify in each IP packet these identifiers so that the receiving VoiceEngine can properly distribute the call data out on the correct channels so the call data reaches the proper destination. There's no way of doing this without an identifier that is used to determine the proper channel". Advisory Action dated June 2, 2009, Continuation Sheet.

Appellant respectfully notes that, in accordance with the disclosure of Wilkes, an identifier is used to determine the proper outgoing extension line. As noted above, Wilkes relates to a single, individual telephone extension line from the second VoiceEngine to each receiving telephone. There is no sharing of an outgoing transmission line between channels. Therefore, there is no disclosure of, or any need for, channel-specific identifiers in Wilkes.

The following drawings schematically illustrate the difference between Wilkes and embodiments of the present invention:



Wilkes



Embodiments of Present Invention

Thus, while Wilkes merely discloses the identification of the line, embodiments of the present invention provide an identifier for a channel within a line.

Since Wilkes fail to teach or suggest at least this feature of the pending claims, the Office Action fails to establish a *prima facie* case of obviousness.

B. Wilkes fails to provide any disclosure related to time slots

Pending claim 1 recites:



“indicating within said IP protocol datagram separately for each of a plurality of time slots known to at least one of said first and second circuit switched network nodes, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.”

The Examiner argues that, due to the multiplexing of the voice data, such data must be sent in packets which are separated into time slots. Examiner’s interpretation of Wilkes is without merit. As discussed above, the alleged multiplexing disclosed in Wilkes is accomplished through distribution of a single signal through pre-selection of destinations by the subscriber and not through channel identification parameters and time slots. Wilkes fails to teach or suggest any separation into time slots.

In accordance with the disclosure of Wilkes, a whole packet is always used for only one telephone connection. Even the Examiner interprets the disclosure of Wilkes as teaching that “each packet sent by the VoiceEngine contains a header that identifies which voice connection the packet belongs.” Office Action dated October 2, 2008, Page 7. Further, in accordance with the disclosure of Wilkes, the circuit switched line that comes to or goes from the VoiceEngine is a single telephone extension line and, therefore, does not require any time slot structure. Thus, Wilkes fails to teach or suggest anything associated with time slots corresponding to any indications.

In accordance with the disclosure of Wilkes, if a voice-carrying IP protocol datagram arrives at a receiving VoiceEngine, the voice signal must be carried on the telephone line. There is no possibility in the system of Wilkes of an IP protocol datagram that would not

carry data and would thus allow the receiving VoiceEngine to receive data to some channel from other sources.

C. Examiner's assertion of an "optional" limitation is erroneous

In the Advisory Action, the Examiner refers to "the optional limitation, 'allowing the VoiceEngine to receive data to that channel ....' " Advisory Action dated June 2, 2009, Continuation Sheet. Appellant respectfully disagrees with the Examiner's characterization of the quoted language as both "optional" and as "limitation".

First, the language in the inner quotes was used by Appellant as a citation to the Examiner's assertion in an earlier Office Action. See Office Action dated March 23, 2009, page 6, lines 2-4. The pending claims recite no limitation which refers to any "VoiceEngine." The actual limitation in claim 1 is "the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner."

Second, the limitation recited in claim 1 is not "optional", as alleged by the Examiner. The Examiner argues that "there is nothing in the invention of Wilkes that prevents this from occurring" and that there is nothing in Wilkes "that prevents a VoiceEngine from handling separate connections at the same time." Advisory Action dated June 3, 2009, Continuation Sheet. Appellant respectfully disagrees.

Wilkes's second Voice Engine is a dedicated device. See Wilkes, paragraph [0058]. Thus, it is only capable of performing the one task of receiving IP packets and converting their content into a normal telephone signal that it passes on to an extension line. In

accordance with the disclosure of Wilkes, the packets must necessarily come in order.

Otherwise, they could not be used for reconstructing a meaningful telephone signal.

D. Conclusion

For at least the above-noted reasons, independent claims 1, 10, 28 and 29 are patentable. Claims 4-9, 12-21, 24, 25 and 27 each depend from one of allowable claims 1, 10 or 28 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

**IV. Rejection of claims 22 and 23 under 35 U.S.C. § 103(a)**

Claims 22 and 23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wilkes in view of Rose. Claims 22 and 23 depend from allowable claim 1 and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

**CLAIMS APPENDIX**

1. (Previously Presented) A method, comprising:

transmitting data over a data transmission network from a first circuit switched transmission line through a first circuit switched network node towards a second circuit switched network node that is coupled to a second circuit switched transmission line;

employing, in the data transmission network, an IP protocol for transmissions from said first circuit switched network node, which receives data from said first circuit switched transmission line, towards said second circuit switched network node, said data being destined for transmission into said second circuit switched transmission line;

using an IP protocol datagram to transmit data received from the first circuit switched transmission line towards the second network node;

forming a header for said IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line, and an IP protocol address of the second network node; and

indicating within said IP protocol datagram separately for each of a plurality of time slots known to at least one of said first and second circuit switched network nodes, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.

2. (Canceled).

3. (Canceled).

4. (Previously presented) The method according to claim 1, wherein data from at least one channel of the first circuit switched transmission line is transmitted as compressed data over the data transmission network.

5. (Previously Presented) The method according to claim 4, wherein only compressed speech signal parameters of a signal received from said at least one channel of the first circuit

switched transmission line are transmitted over the data transmission network; wherein said received signal comprises an uncompressed speech signal part and compressed speech parameters.

6. (Previously presented) The method according to claim 4, wherein the received signal of said at least one channel of the first circuit switched transmission line is compressed in the first network node.

7. (Previously Presented) The method according to claim 28, wherein compressed speech parameters received from the first network node are decompressed into an uncompressed speech signal before transmission into the second circuit switched transmission line.

8. (Previously Presented) The method according to claim 1, wherein samples of data from more than one channel of the first circuit switched transmission line are transmitted over the data transmission network in one IP protocol datagram.

9. (Previously Presented) The method according to claim 1, further comprising:

transmitting a message which describes supported coding modes for compressed speech parameters from the first circuit switched network node to the second circuit switched network node, and

describing said supported coding modes in said transmitted message in an order of preference for optimizing speech data transmission.

10. (Previously Presented) A network element, comprising:

a first connection for connecting to a first circuit switched transmission line;

a second connection for connecting to a data transmission network employing an IP protocol, and

a storage medium embodying computer-executable instructions that, when executed on a processor, are configured to implement an IP protocol address generating unit for generating IP protocol addresses for IP protocol datagrams to be transmitted over said data transmission network to a second network element;

wherein said IP protocol address generating unit is configured to form a header of an IP protocol datagram based at least partly on circuit switched channel identifying parameters,

which identify at least one channel in a second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element; and wherein the network element is configured to indicate within said IP protocol datagram separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.

11. (Canceled).

12. (Previously Presented) The network element according to claim 10, wherein the network element comprises a compressed speech parameter extraction unit for extracting compressed speech parameters from at least one signal from the first circuit switched transmission line, said at least one signal comprising an uncompressed speech signal part and compressed speech parameters.

13. (Previously Presented) The network element according to claim 10, wherein the network element comprises a compression unit for compressing a signal of at least one channel of the first circuit switched transmission line before transmission over the data transmission network.

14. (Previously Presented) The method according to claim 1, further comprising:  
inserting status information into the datagram.

15. (Previously Presented) The method of claim 14, wherein said status information comprises at least an indicator to indicate activity of the at least one channel, a length of samples of the at least one channel and whether channel information definition is comprised in the IP protocol datagram.

16. (Previously Presented) The method according to claim 1,  
wherein said forming of a header for said IP protocol datagram is based at least partly

on a time slot number that at least one of said first and second network nodes knows associate with data which is transferred in the IP protocol datagram.

17. (Previously Presented) The network element according to claim 10,  
wherein the network element is configured to insert status information into the IP protocol packet.

18. (Previously Presented) The network element according to claim 10,  
wherein the network element is configured to determine said IP protocol address based at least partly on a time slot number that at least one of said first and second network nodes knows associate with data which is transferred in the IP protocol datagram.

19. (Previously Presented) The method according to claim 1, further comprising:  
inserting a number of samples from at least one channel of said first transmission line into a payload portion of said IP protocol datagram.

20. (Previously presented) The method of claim 1, wherein the method comprises transmitting the number of time slots in the corresponding frame.

21. (Previously Presented) The method of claim 28, wherein the method comprises receiving data of different time slots of a single PCM trunk line from different packet network gateways.

22. (Previously presented) The method of claim 1, wherein a first packet network gateway acts as said first circuit switched network node and sends data to a second packet network gateway that acts as said second circuit switched network node, and said first packet network gateway uses headers of transmitted IP protocol datagrams to identify time slots 5 to 10 of a PCM trunk line operating at least at the rate 2048 kbit/s as destinations of transmitted data at said second packet network gateway.

23. (Previously presented) The method of claim 22, wherein a third packet network gateway is arranged to send data to the second packet network gateway and to use headers of transmitted IP protocol datagrams to identify the rest of the time slots of the same PCM trunk

line as destinations of data transmitted from said third packet network gateway to said second packet network gateway.

24. (Previously Presented) The method of claim 28, wherein a destination packet network gateway acts as said second circuit switched network node and receives data destined to a group of channels in the second circuit switched transmission line from another packet network gateway.

25. (Previously Presented) The method of claim 28, wherein said second circuit switched network node receives data destined to individual channels in the second circuit switched transmission line separately from one or more other sources, such as IP telephones.

26. (Canceled).

27. (Previously Presented) The network element according to claim 10, wherein the network element is configured to insert a number of samples from said at least one channel of said first transmission line into a payload portion of said IP protocol datagram.

28. (Previously Presented) A method, comprising:

receiving data over a data transmission network, said data coming from a first circuit switched transmission line through a first circuit switched network node, at a second circuit switched network node that is coupled to a second circuit switched transmission line;

employing, in the data transmission network, an IP protocol for transmissions from said first circuit switched network node to said second circuit switched network node, said data originating from said first circuit switched transmission line and being destined for transmission into said second circuit switched transmission line;

using an IP protocol datagram to receive data transmitted from the first circuit switched transmission line at the second network node;

reading a header from said IP protocol datagram, said header being based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line, and an IP protocol address of the second network node; and

reading from said IP protocol datagram an indication separately for each of a plurality



of time slots known to at least one of said first and second circuit switched network nodes, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched network node is allowed to receive data to that channel from other sources from an IP-network in a nonconsecutive manner.

29. (Previously Presented) A second network element, comprising:

- a first connection for connecting to a data transmission network employing an IP protocol,

- a second connection for connecting to a second circuit switched transmission line, and
- a storage medium embodying computer-executable instructions that, when executed on a processor, are configured to implement an IP protocol address reading unit for reading IP protocol addresses from IP protocol datagrams received over said data transmission network from a first network element;

- wherein said IP protocol address reading unit is configured to read a header from an IP protocol datagram based at least partly on circuit switched channel identifying parameters, which identify at least one channel in the second circuit switched transmission line coupled to the second network element, and an IP protocol address of the second network element; and
- wherein the network element is configured to read from said IP protocol datagram an indication separately for each of a plurality of time slots known to at least one of said first and second network elements, whether the IP protocol datagram carries data belonging to a channel corresponding to the time slot, so that when it is indicated that the IP protocol datagram does not carry data belonging to a channel, the second circuit switched packet network element is allowed to receive data to that channel from other sources from an IP-network in a non-consecutive manner.

**EVIDENCE APPENDIX**

None.

**RELATED PROCEEDINGS APPENDIX**

None.

Respectfully submitted,

Date February 11, 2010

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